

CLAIMS

1. A phosphorus-containing coated magnesium oxide powdered material comprising a coated magnesium oxide powdered material having a surface coating layer comprised of a double oxide,  
the phosphorus-containing coated magnesium oxide powdered material having a coating layer comprised of a magnesium phosphate compound in at least a part of a surface of the coated magnesium oxide powdered material,  
wherein the content of the magnesium phosphate compound in the coated magnesium oxide powdered material is 0.1 to 10% by mass, in terms of phosphorus.
2. The phosphorus-containing coated magnesium oxide powdered material according to claim 1, wherein the magnesium phosphate compound is represented by  $Mg_xP_yO_z$  (wherein  $x = 1$  to  $3$ ,  $y = 2$ , and  $z = 6$  to  $8$ ).
3. The phosphorus-containing coated magnesium oxide powdered material according to claim 1 or 2, wherein the double oxide comprises at least one element selected from a group consisting of aluminum, iron, silicon, and titanium, and magnesium.
4. A resin composition comprising the phosphorus-containing coated magnesium oxide powdered material according to any one of claims 1 to 3 and a resin.
5. The resin composition according to claim 4, wherein the resin is a thermosetting resin.
6. The resin composition according to claim 5, wherein the thermosetting resin is a phenolic resin, an urea resin,

a melamine resin, an alkyd resin, a polyester resin, an epoxy resin, a diallyl phthalate resin, a polyurethane resin, or a silicone resin.

5     7.     The resin composition according to claim 4, wherein the resin is a thermoplastic resin.

8.     The resin composition according to claim 7, wherein the thermoplastic resin is a polyamide resin, a polyacetal resin, a polycarbonate resin, a polybutylene terephthalate resin, a polysulfone resin, a polyamideimide resin, a polyether imide resin, a polyarylate resin, a polyphenylene sulfide resin, a polyether ether ketone resin, a fluororesin, or a liquid crystalline polymer.

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9.     A radiator using the resin composition according to any one of claims 4 to 8.

10.    A method for producing a phosphorus-containing coated magnesium oxide powdered material,

20           the method comprising treating a coated magnesium oxide powdered material having a surface coating layer comprised of a double oxide with a phosphorus compound, and then calcining the resultant powdered material at 300°C or higher to form a magnesium phosphate compound on at least a part of a surface of the coated magnesium oxide powdered material.

11.    The method according to claim 10, wherein the phosphorus compound is at least one compound selected from a group consisting of phosphoric acid, a phosphoric acid salt, and an acid phosphate.

12.    The method according to claim 11, wherein the acid

phosphate is at least one ester selected from a group consisting of isopropyl acid phosphate, 2-ethylhexyl acid phosphate, oleyl acid phosphate, methyl acid phosphate, ethyl acid phosphate, propyl acid phosphate, butyl acid phosphate, lauryl acid phosphate, and stearyl acid phosphate.

13. The method according to any one of claims 10 to 12, wherein the phosphorus compound is added so that the content of the magnesium phosphate compound in the coated magnesium oxide powdered material is 0.1 to 10% by mass, in terms of phosphorus.